

**Module 1**

# INTRODUCTION TO PREVENTING SLIPS, TRIPS AND FALLS

## Purpose

In order to create a comprehensive system for preventing slips, trips and falls, participants need a basic understanding of the problem. This module begins with some facts and statistics relating to slips, trips and falls. Participants will learn about the number of deaths and disabilities caused by these injuries and about the associated costs. They will learn the various OSHA regulations and other standards. The module also explores the different types of slips, trips and falls. Finally, participants will be introduced to the components of effective trip, slip and fall prevention: recognize, evaluate, and control.

## Objectives

After completing this module, participants will be able to:

- Identify the impact of slips, trips and falls on the workplace.
- Recognize key slip, trip and fall terminology.
- Recognize OSHA regulations and other standards relating to slips, trips and falls.
- Identify the various types of slips, trips and falls.
- State the three components of effective trip, slip and fall prevention.

## Time

60 minutes: 8:30 to 9:30 AM

Followed by a 10 minute break, 9:30 to 9:40 AM

## Agenda (Instructional Strategy and Content Outline)

The following topics and activities are covered in this module. An estimate of the time needed to cover each section of the module appears in parentheses.

1. Facts about Slips, Trips and Falls—Quiz and Debrief (15 minutes)
2. Definitions Relating to Slips, Trips and Falls—Presentation (10 minutes)
3. Regulations and Standards for a Safe Workplace—Presentation (10 minutes)
4. Types of Slips, Trips and Falls—Activity (20 minutes)
5. Components of a Proactive Slip, Trip and Fall Prevention System—Activity (5 minutes)

## Key Terms and Concepts

- Facts about slips, trips and falls
- Slip, trip and fall terminology
- Regulations and standards for a safe workplace
- OSHA Sub Part D, Standards for Walking and Working Surfaces
- Types of slips, trips and falls
- Components of a proactive slip, trip and fall prevention system

## Materials and Equipment

To prepare for delivering *Module 1*, you will need the following:

- Participant Guide and Facilitator Guide
- Flipchart, markers, and tape
- Laptop computer (PC) and LCD projector with wireless remote or overhead projector
- Overhead transparencies or PowerPoint slides: 1-1 through 1-27

## Suggestions for Time Management

- Keep short the discussion of the quiz on Page 2.
- Keep your presentation of the terminology on Page 3 short and to the point.
- Select the most important ideas from Pages 5-7 to discuss. Don't discuss every single point on these pages.
- When participants are working in small groups, call out the time to keep them on track.

**Cues****Presentations and Activities****1. Facts About Slips, Trips and Falls—Quiz and Debrief (15 minutes)****PPT 1-1**

- Start this module by showing PPT 1-1.
- Refer participants to Page 1 of Module 1, *Introduction to Preventing Slips, Trips and Falls*.

**PPT 1-2**

- Show PPT 1-2 to introduce the module objectives.

**5 Minute Quiz**

- Refer participants to Page 2. Facilitate a 5 minute quiz. Introduce the quiz with the following points:
  - Let's begin our discussion of slips, trips and falls by looking at some related facts and statistics.
  - Test your slip, trip and fall IQ by taking this quiz.

**PPT 1-3**

- Show PPT 1-3 as you allow participants time to take the quiz.

**10 Minute Debrief**

- Lead a 10 minute debriefing to present the quiz answers. To do this, first get participant responses to a quiz item, then show the corresponding PowerPoint slide with the answer.

**PPT 1-4**

- Use PPT 1-4 to present the answer to Question 1.

**PPT 1-5**

- Use PPT 1-5 to present the answer to Question 2.

**PPT 1-6**

- Use PPT 1-6 to present the answer to Question 3.

**PPT 1-7**

- Use PPT 1-7 to present the answer to Question 4.

**PPT 1-8**

- Use PPT 1-8 to present the answer to Question 5.
- Tell participants that the statistics for this quiz were obtained from the National Safety Council's research department and they represent the most recent information available.
- Answer participant questions.

**10 Minute  
Presentation****2. Definitions Relating to Slips, Trips and Falls—Presentation  
(10 minutes)**

- Lead a 10 minute presentation in which you cover the information on Pages 3 and 4. Spend about 5 minutes on each page.
- Refer participants to Page 3 and introduce it as follows:
  - There are many terms relating to slips, trips and falls.
  - These definitions will acquaint you with the terminology we will be using in this course.
- Show PPT 1-9 to review the definitions of *slip* and *trip*.
- Show PPT 1-10 to review the definition of *fall*.
- Show PPT 1-11 to review the definition of *friction*.
- Show PPT 1-12 to review the definitions of *tribology* and *tribometer*.
- Show PPT 1-13 to review the definition of *foot candle*.
- Show PPT 1-14 to review the definition of *lumen*.
- Show PPT 1-15 to review the definitions of *slip resistance* and *high traction*.
- Show PPT 1-16 to review the definition of *coefficient of friction*.
- Refer participants to Page 4. Make the following statements:
  - The coefficient of friction (COF) is a ratio between two forces.
  - It is determined by dividing the horizontal force (from the floor's resistance) by the vertical force (from the foot or shoe).

**PPT 1-17**

- There is no formal industry or government standard for COF, however floor experts agree that a safe range is 0.5 to 0.6.

- Tell participants that you are going to demonstrate some examples of calculating coefficient of friction.

- Show PPT 1-17 and discuss how to calculate the COF if it takes 6 pounds of force to move a 10 pound object.

- Point out that a COF of 0.6 is considered by floor experts to be safe.

**PPT 1-18**

- Show PPT 1-18 to show the calculation of the COF when it takes 2 pounds of force to move a 10 pound object.

- Point out that a COF of 0.2 is considered by floor experts to be unsafe and slippery.

**PPT 1-19**

- Show PPT 1-19 to show the calculation of the COF when it takes 15 pounds of force to move a 10 pound object.

- Point out that any coefficient above 0.1 is considered to be a trip hazard. A COF of 1.5, as in this example, is rare.

**PPT 1-20**

- Refer participants to the middle of Page 4. Show PPT 1-20 and point out that there are two ways to measure coefficient of friction.

- Refer participants to the four points at the bottom of Page 4. Have participants review these points individually.

- Close the presentation by answering participant questions.

**10 Minute  
Presentation****PPT 1-21****3. Regulations and Standards for a Safe Workplace—  
Presentation (10 minutes)**

- Lead a 10 minute presentation. Begin by telling participants that a number of regulations and standards can help them to create a hazard-free workplace.
- Show PPT 1-21 and make the following points:
  - OSHA’s regulatory requirements are mandatory. An organization must comply with them.
  - There are other standards that are voluntary. Although organizations are not required to comply with them, they are good for setting benchmarks for a safe workplace.
  - Organizations must also be aware of individual state building codes.
- Quickly review Pages 5 through 7 by making the following points about each of the regulations or standards.
- OSHA General Duty Clause
  - A clause from the 1970 OSH Act
  - It states that employers must provide a safe working environment for employees
- OSHA Sub Part D, 1910.21-1910.30, Standards for Walking and Working Surfaces
  - An important and comprehensive standard
  - Includes specifications for everything relating to walking and working surfaces
  - If there is only one standard for you to become familiar with, this is the one.
  - A copy of this standard is on the *Tools and Resources* CD-ROM that came with your Participant Guide.

- OSHA Guidelines for Occupational Foot Protection (1910.136)
  - Part of the Sub Part D Standard
  - Addresses appropriate footwear
- NFSI Standards for Walkway Safety
  - Standards from the National Floor Safety Institute that help property owners reduce slips, trips and falls
  - Provide organizations with an opportunity to have their floors assessed and certified
- ANSI Standard for the Provision of Slip Resistance on Walking/Working surfaces (A1264.2-2001)
  - From the American National Standards Institute
  - Guidelines for slip resistant floors
- ASTM Standard Practice for Safe Walking Surfaces (F1637.95)
  - From the American Society for Testing and Materials
  - Provides standards for walking and working surfaces
- ANSI Z41
  - From the American National Standards Institute
  - Guidelines for footwear
- NFPA 101 Life Safety Code
  - From the National Fire Protection Association
  - Addresses light and signage criteria for evacuations

**PPT 1-22**

- Individual State Building Codes
  - It is important for you to be familiar with the building codes in your state.
  - These codes can guide you in reducing slip, trip and fall hazards in your workplace.
- Refer participants to Page 8. Use PPT 1-22 to review the points on this page.
- Answer participant questions.



**20 Minute Activity****4. Types of Slips, Trips and Falls—Activity (20 minutes)**

- Facilitate a 20 minute activity in which you will do the following:
  - Allow participants 2 or 3 minutes to complete Page 9 individually.
  - Allow 7 or 8 minutes for groups of 4-5 people to complete Page 10.
  - Allow 10 minutes to debrief the activity.
- Start the activity by referring participants to Page 9.
- Make the following points:
  - When you introduced yourself at the beginning of this course, you identified the most common type of slip, trip or fall in your organization.
  - Now review the lists on this page and check the boxes that correspond to incidents that are common in your workplace.
- After participants have completed Page 9, break the large group into several groups of 4-5 participants.
- Refer participants to Page 10. Use PPT 1-23 as you explain to them what they will be doing.
  - Work in your group to identify two types of slips, trips or falls from Page 9.
  - Determine one or two actions a person or organization can take to improve in each of the areas you identify.
- As participants work, leave PPT 1-23 on the screen.
- Walk around the room to get a sense of the issues they are addressing.
- Periodically announce the time so the groups can pace themselves.

**PPT 1-23****PPT 1-23**

**Facilitator Note**

- When time is up, call the groups back together and debrief by discussing the following:
  - What types of slips, trips and falls did you discuss?
  - What actions did you identify?
- As participants share the actions they identified, jot them quickly on a flip chart page.
- Close the activity by encouraging participants to follow a similar process for identifying hazards and potential actions at their workplaces.
- Emphasize that, when they do this on the job, they should consult the OSHA standard first to help them identify the corrective actions they should take.

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| <b>5 Minute Activity</b> | <b>5. Components of a Proactive Slip, Trip and Fall Prevention System—Activity (5 minutes)</b> <ul style="list-style-type: none"> <li>■ Refer participants to Page 11. Facilitate an activity in which you introduce them to the three components of proactive slip, trip and fall prevention. Make the following points: <ul style="list-style-type: none"> <li>– There are three components of effective and proactive slip, trip and fall prevention.</li> <li>– These components are the backbone of all safety and health management systems.</li> </ul> </li> </ul> |
| <b>Question</b>          | <ul style="list-style-type: none"> <li>■ Can anyone say what the first component is? <ul style="list-style-type: none"> <li>– Get ideas from a few participants.</li> <li>– When someone says “Recognize the hazard,” congratulate that person.</li> </ul> </li> </ul>  |
| <b>PPT 1-24</b>          | <ul style="list-style-type: none"> <li>■ Show PPT 1-24, then ask what the second component is.</li> </ul>   |
| <b>PPT 1-25</b>          | <ul style="list-style-type: none"> <li>■ When someone answers, “Evaluate the hazard,” show PPT 1-25, then ask what the third component is.</li> </ul>   |
| <b>PPT 1-26</b>          | <ul style="list-style-type: none"> <li>■ When someone answers, “Control the hazard,” show PPT 1-26, and congratulate participants for knowing their safety management system so well.</li> </ul>  |
| <b>PPT 1-27</b>          | <ul style="list-style-type: none"> <li>■ Refer participants to Page 12. Use PPT 1-27 as you explain that at the end of every module, there will be an action plan.</li> </ul>   |
|                          | <ul style="list-style-type: none"> <li>■ This plan gives participants the opportunity to identify actions they will take when they go back to their workplaces.</li> <li>■ As time permits, allow participants to identify some actions.</li> </ul>   |
| <b>Transition</b>        | <ul style="list-style-type: none"> <li>■ Tell participants that after the break, they will learn how to recognize slip, trip and fall hazards at their worksites.</li> </ul>  |
| <b>10 Minute Break</b>   | Take a 10 minute break.   |

